DOCUMENT RESUME

ED 160 992 CS 004 415

AUTHOR Chapman, L. J.
TITLE Alternative Outcomes of Reading Comprehension: New Verbal Strategies.
PUB DATE Aug 78
NOTE 18p.; Paper presented at the Biennial Meeting of the International Reading Association World Congress on Reading (7th, Hamburg, West Germany, August 1-3, 1978)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Cloze Procedure; Elementary Secondary Education; *Linguistic Theory; Pronouns; *Reading Comprehension; *Reading Instruction; *Reading Research; *Reading Skills; *Structural Analysis
IDENTIFIERS *Anaphora

ABSTRACT

Only recently have attempts been made to systematically explore texts for the linguistic features that give continuity and coherence. Such research has potential meaning for the reading teacher if it can be shown that mastery of the linguistic mechanisms that create texts is a key to fluent reading. One cohesive tie is the process of anaphora (linking back to something that has gone before). A study of 230 English children in first and middle schools was conducted using cloze procedure to discover how fluent and nonfluent readers had mastered anaphoric processes as demonstrated by the use of pronouns. Those children who were fluent readers showed a much greater ability to cope with anaphora than did nonfluent readers. Research suggests that teaching of reading might concentrate not simply on the incremental process of letter-by-letter and word-by-word processing but also on helping the reader read within a holistic framework. (TJ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED160992

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. J. Chapman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Dr. L.J. Chapman,
Sub-Dean (Academic),
Faculty of Educational Studies,
The Open University,
Walton Hall,
Milton Keynes, MK7 6AA,
Buckinghamshire.

Seventh World Congress on Reading

International Reading Association

Hamburg, August 1st-3rd 1978

Alternative Outcomes of Reading Comprehension: New Verbal Strategies

Abstract

This paper will show that for a text to be recognisable as a text, it must be ordered and display cohesion. Cohesion is said to be the set of meaning relations that is general to all classes of text that distinguish texts from non-texts. A study of the mechanisms of cohesion indicates how a text is constructed so as to convey the semantic purposes that it serves. One of these mechanisms is anaphora, the process of linking back to something that

CS004415

has gone before. An understanding of this process, which is often exemplified by pronomisalization, is shown to be most beneficial in the teaching of comprehension. The author's present research has shown, for instance, that anaphoric processes are significant elements in fluent reading.

One of the strategies for the teaching of comprehension in middle schools would be to lead pupils to discern some of these cohesive patterns. A variety of techniques can be used to achieve these verbal outcomes, and some are given as examples.

Introduction

Reading, to be reading at all, requires the presence of a text. Although this is a truism, it is nonetheless fundamental. Furthermore, when fluent reading is being discussed, it is assumed that the text in front of the reader is of some length, for fluency, by its very definition requires text continuity. Given these apparently elementary facts, it may seem strange that reading research over the years has been largely concerned with the minutiae of the reading process, letters and words, and not the whole text. An analogy from the natural sciences seems to have been followed, where it is the minute particles (that make up the atoms that join together to produce the larger molecules of which elements are constructed), that capture research interest. Hence a vast amount of research time has been spent studying such phenomena as distinctive features of letters and word recognition. In addition, the study of these small features, perhaps because they seem crucial for the beginning reading process, has usually been conducted under laboratory conditions, whereas investigations of the reading of continuous texts require situations more akin to those of real life reading. Unfortunately, the volume of this effort on the particles has not been balanced by a similar amount of attention to the characteristics of continuous texts. These comments should not be construed in such a way as to decry research into the functioning of the smaller elements, for it has produced a wealth of

knowledge, but rather to point out that the balance of attention needs shifting towards other areas of fundamental importance for the study of reading and its pedagogy. A new orientation is required for emphasis, for in reading the text is the prerequisite. After all, you can't read without it!

When texts are examined a second fundamental for reading is apparent, that is, for a text to be recognisable as a text, rather than a haphazard collection of words and sentences, its construction must be orderly and coherent. Thus it has to contain linkages and order arrangements or patternings which integrate and provide it with continuity. It follows, therefore, that readers must, in some way, perceive these linkages and pattern elements. This is easily demonstrated for skilled adult readers are able to distinguish between a text and a non-text without difficulty. Furthermore, a skilled reader can tell whether a passage has more or less coherence. It is often said, for example, that one text 'hangs together' better than another. This has been studied for some time as linguists will testify.

It is only comparatively recently, however, that attemtps have been made to explore systematically the detail of the linguistic features that give texts continuity and coherence. Amongst the most important of these developments is the extension of linguistic methods of analysis 'beyond the sentence' to the study of whole texts, (Van Dijk, 1977) and

the statement of the principles of textual cohesion, (Halliday and Hasan 1976). If these new insights are to be of use to the teacher of reading, however, we need to know more details of the linguistic mechanisms that create texts, for it may be that the key to fluent reading and its attendant comprehension lies in the mastery of these in-built textual rules.

A new perspective that emphasises the importance of the characteristics of continuous texts for a study of reading is proposed. It is suggested also that certain linguistic descriptions that purport to identify the mechanisms that give texts their continuity need to be researched for their validity in reading situations. Furthermore, we need to know which of these features, if any, are significant for the development of reading skills.

One of the most potentially fruitful studies of the properties of text that adapt this perspective has been provided recently by the linguists Halliday and Hasan (1976), who have identified some of the detail of the linguistic mechanisms that perform the function of textual integration. In their book, Cohesion in English, they addressed themselves to the characteristics of textual cohesion, and have put forward a series of cohesive ties which have considerable relevance to students of the reading process. For example, most teachers of reading are familiar with the concept of backward acting cues, those linkage features that a reader

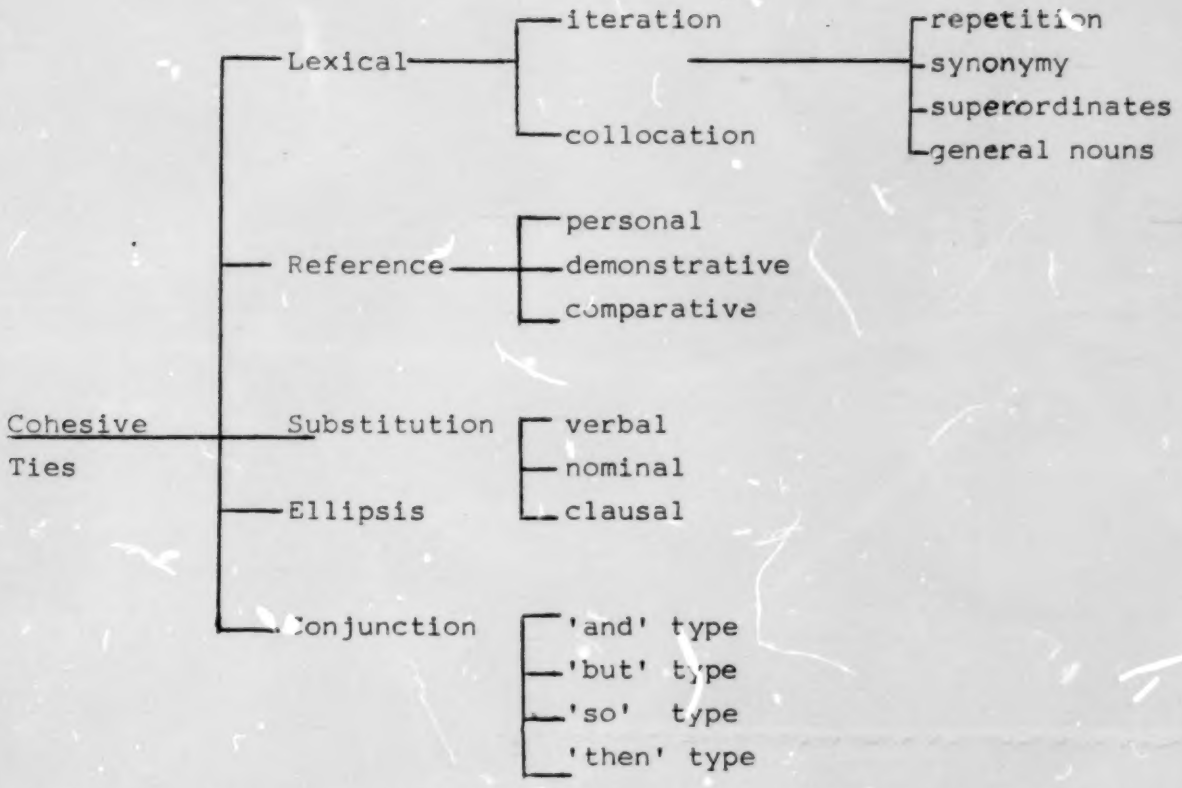
negotiates and which are so important during the development of children's reading. Such cues are, in the main, related to a process which linguists call anaphora. Anaphora is the process of linking back to something that has gone before. This device is often used in English texts and is one of the basic mechanisms for relating elements between sentences as well as within sentences. (Chapman and Hoffman 1977). There are many such features, identified by Halliday and Hasan, that give texts their coherence, but as yet they have neither been fully investigated for their empirical validity in reading as a group of features, nor as individual elements.

A research project has been started, however, to collect this data and some of its findings and their implications for the teacher of reading follows.

Cohesive Ties

The elements in texts which create cohesion have been called cohesive ties and Halliday and Hasan suggest that they can be organised into five main groupings - Lexical, Reference, Substitution, Ellipsis and Conjunction. The system of ties can be shown diagramatically as in Figure 1.

Figure 1



Halliday and Hasan's (1976) Cohesive ties which may act as cues during fluent reading.

Part of a diagram suggested by J. Pearce (1976).

One of the main groups is that of Reference and we will draw on examples from this group to demonstrate the relationships of the linguistic features described to the process of reading.

As will be seen in the diagram (Figure 1) the reference group of cohesive ties contains three sub-groups, that of personal, demonstrative and comparative reference. These are defined by Halliday and Hasan (1976, page 37) as:

"Personal reference by means of function in the speech situation, through the category of person

- Demonstrative reference by means of location, on a scale of proximity.

- Comparative reference is indirect reference by means of identity or similarity."

The discussion has to be limited here to personal reference and this is analysed within the linguistic field of pronouns. Pronouns are of obvious interest to the teacher of reading due to their frequency of occurrence, particularly in children's readers where direct speech is involved. (Chapman 1976) Furthermore, recent research (Richek, 1976/7) has shown that they play an important part in comprehension. More important for our present purpose is that they illustrate the process of anaphora and its cohesive property, simply and directly. A passage from 'Alice in Wonderland' demonstrates how the process works:

"Aren't you sometimes frightened at
being planted out here, with nobody
to take care of you?"
"There's the tree in the middle", said
the Rose. "What else is it good for?"
"But what could it do, if danger
comes?" Alice asked
"It could bark, said the Rose
"It says 'Bough-wough! cried a Daisy,
"that's why its branches are called boughs."

Three uses of "it" and one of "its", each referring anaphorically to the tree. By linking the pronouns to each other and relating them to 'tree' we make connections through the passage. To recover the meaning and comprehend the text, the reader has to relate 'it' to the antecedent element 'tree', and store this relationship in working memory as the passage is being read. To the skilled reader, unless faced with a difficult or poorly structured text, these factors pass unnoticed. However, the beginning reader, needs to master, what, on analysis, seems to be a complex psycholinguistic process. Until such time as the recognition of words is so rapid as to become automatic, the additional demands required by the anaphoric process which plays a large part in integrating the text semantically for comprehension may be too great for the child's central processing mechanisms.

These cohesive ties are, however, still linguistic description. They appear to be very powerful on examination and certainly have the force of logic behind them. They can also be convincingly demonstrated, nonetheless, we do not know at this present time if they are empirically valid and which of them are significant for reading development. After all, children at the beginning reading stage, appear to cope quite adequately in speech situations with such linguistic elements as pronouns so why should they not do so in reading situations? Pronouns may, or may not be a significant factor, so data needs to be collected to give us that degree of confidence that is required before including such notions as cohesive ties into classroom pedagogy. We have then a powerful linguistic description of the elements that make texts, texts, but no evidence that the elements identified play a significant part in reading.

Anaphoric Processes in Early Reading

In a former paper the present author, (Chapman, 1977) reported the results of a pilot study which is part of a larger research project investigating the development of the perception of cohesive ties. This earlier paper reported the performance of fluent and non-fluent readers on an anaphoric processing task where stories were especially written so as to incorporate pronouns, (as indicators of

anaphoral in as natural a setting as possible. Since that pilot study, which produced encouraging and significant results, a much larger investigation has confirmed that the perception of pronouns (as anaphoric vehicles) is a significant factor in the development of fluent reading.

In a full-scale study 230 children (116 from First schools and 114 from Middle schools), were allocated to two groups designated fluent and non-fluent. Cloze procedure was used as a suitable method (Kingston, 1977) for children of this age, to test their ability to process anaphoric relations. It is reasonable to assume that those children whose reading was fluent would have the necessary word recognition abilities and would have mastered anaphoric processes. It follows that they would be able to complete the deletions without difficulty, whereas those who had not achieved a minimum degree of fluency would not be able to cope with the task. So as to make the investigation valid, that is, to check that anaphoric processes per se were being tapped a graded word reading test was given to all children taking part in the study. This prevented the tasks becoming simple word recognition exercises by excluding those whose word recognition was insufficient for the task. The graded word reading test data was used also to confirm the fluent, non-fluent groupings.

Fourteen stories were written especially for the invesigation in the style usually encountered by children in their reading books in First and Middle Schools. Two cloze versions of each of the fourteen stories were prepared. The

first had pronouns only deleted (7 deletions per story), the second had words that were not performing an anaphoric function deleted, (again at seven deletions per story). A further feature was added to control for word recognition by supplying the deleted pronouns or words in a list at the foot of each story in half the booklets. The stories were stapled into individual booklets with the stories in random order.

The children were given 30 minutes to complete each of the cloze preparations in the course of a normal school situation. Most of the children enjoyed filling in the missing words and completed the stories within the time allocation.

The results confirmed those of the pilot study in that an ANOVA statistical programme showed a very significant difference between the performance of the children in the fluent group from those in the non-fluent group. ($P < 0.001$) There was also a very significant difference between their performance on the two cloze versions of the fourteen stories. i.e. the difference between the anaphoric and non-anaphoric versions was significant ($P < 0.001$). The mean cloze scores on the fourteen stories were greater for the anaphoric completions than the non-anaphoric and the mean scores of the fluent readers, as expected, were greater than the non-fluent. The results were interpreted as demonstrating that the ability to cope with anaphora is a fundamental process in fluent reading as performance on anaphoric processes was

in no way so demanding a task as the non-anaphoric, however, the non-fluent readers could not cope with the less demanding anaphoric task even when the words for deletion were present in list form and were recognisable as individual words.

The study has demonstrated the workings of one of the elements from the Reference groups of cohesive ties. It has shown its validity in the reading process and also that it could well be a significant factor in the development of fluency. Another of the groups of cohesive ties is being investigated in the same way, conjunctions, with similar encouraging results.

Classroom implications

What then do we learn from this new perspective and what are the implications for the teacher of reading. The vast majority of teachers of early reading approach their task in much the same way as the direction of reading research that was mentioned earlier; that is from an incremental viewpoint, letter by letter, word by word processing. Whilst it is obvious that this has to take place because the beginner cannot cope with whole texts in the initial stages, no matter how simplified, it is nonetheless vitally important to start reading within a wholistic framework so that the beginner sees his task as a whole instead of a collection of bits each requiring individual attention. We

have evidence from our studies that those children who are beginning to read fluently have the ability to perceive the cohesive factors and are thus able to integrate the text semantically for they are constructing a meaningful whole as they read. It is important to emphasise that it is not just the ability to select the correct word but the textual integration by anaphoric and other processes that is being performed, the selection of the pronoun is only a vindication. It may well be that the inability of some pupils to progress is due to the great emphasis placed on the minutiae. The bits dominate to such an extent that the young reader cannot conceive the whole, in effect they can't see the wood for the trees. And the tradegy is that the less they cope the more they tend to be drilled on such sub-skills as letter-sound relationships and the less they see the whole. Failure is thereby reinforced by more of the same.

Frank Smith makes a similiar point for different reasons when he advocates that children learn to read by reading. In the same way, others have counselled teachers to urge their pupils to read for meaning. However, whilst this has been accepted amongst the aims of reading for some time, teachers have not had clear indication of the actual teaching points required to achieve these objectives. It may be that new linguistic concepts like cohesion, and the attendant proposal of cohesive ties, illustrated above, can supply both the perspective needed and the detail required for teaching.

A further important aspect that needs reporting from the research in progress is that the ability of young readers to process the cohesive ties that have been identified, is surprisingly late developmentally. Adequate performance, (to a set criterion), for completing deletions of personal pronouns indicating what were thought to be simple anaphoric processes, did not occur until nine or ten years of age. Similarly, adequate performance on another main grouping, that of conjunctions, apart from 'the additives' was even later. It is obvious that there is much to be taken into consideration from these results, for not only is early reading involved, but later reading, especially the development of comprehension.

One of the features of the concept of cohesion and cohesive ties is that the ties are linkages within the text that give the text its unity. They are at the same time the mechanisms of semantic integration and as such fundamental to comprehension.

It will have been noticed that cloze procedure was the method chosen to elicit information of anaphoric processes, and in itself cloze is, of course, a measure of comprehension. We have then an additional point of importance, for not only can some of these cohesive ties be tested by the cloze procedure, e.g. the deletion of pronouns, but the technique can be used as a teaching device. In many activities during and after the early stages, pupils can be made aware of the function of

cohesive ties by completing and preparing cloze passages where the ties have been systematically broken. A further useful teaching device has been to give passages of text for pupils to mark up for ties. This has the further advantage that the cohesive ties can be used to aid coherent writing for, as ever, a good strategy for teaching reading will be sound also for teaching the associated skills.

References

Chapman L.J. The Influence of Semantic Development on Reading Development. In Gilliland J. (Ed.) Reading: Research and Classroom Practice. Wardlock Educational (1977)

Chapman L.J. The Perception of Language Cohesion During Fluent Reading. Paper read at the Processing of Visible Language Conference, Eindhoven, Holland. (1977).

Chapman L.J. and Hoffman M. Developing Fluent Reading, Block 1, Course PE231 Reading Development. The Open University Press.

Van Dijk, T.A. Text and Context. Explorations in the Semantics and Pragmatics of Discourse, London and New York Longmans.(1977)

Halliday M.A.K. and Hasan R. (1976) Cohesion in English. London Longmans.

Kingston A.J. (Ed) Towards a Psychology of Reading and Language. Selected Papers of Wendell W. Weaver. (1977) Athens. The University of Georgia Press.

Pearce J. Private Communication (1976) Cambridgeshire Education Authority, U.K.

Richek M. A. Reading Comprehension of Anaphoric Forms in Varying Linguistic Contexts. Reading Research Quarterly 1976/7 3, p.145-165.